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Meeting of the Parties to the Convention
on Environmental Impact Assessment
in a Transboundary Context

Meeting of the Parties to the Convention
on Environmental Impact Assessment in
a Transboundary Context serving as the
Meeting of the Parties to the Protocol on
Strategic Environmental Assessment

Implementation Committee

Fifty-sixth session

Geneva, 2–5 May 2023

Item 5 of the provisional agenda

Committee initiatives

Findings and recommendations on compliance by Bulgaria with its obligations under the Convention with respect to the lifetime extension of units 5 and 6 of Kozloduy nuclear power plant

Prepared by the Implementation Committee

Summary

The present document contains findings and recommendations prepared by the Implementation Committee under the Convention on Environmental Impact Assessment in a Transboundary Context (Espoo Convention) and its Protocol on Strategic Environmental Assessment further to the Committee initiative concerning compliance by Bulgaria with its obligations under the Convention with respect to the lifetime extension of units 5 and 6 of Kozloduy nuclear power plant. The Committee finalized, following its fifty-fifth session (Geneva (online), 31 January–3 February 2023) on 16 February 2023 the findings and recommendations, using its electronic decision-making procedure, taking into account comments and representations from Austria, Bulgaria and Romania in accordance with paragraph 9 of its structure and functions.^a

In accordance with rule 13 of the operating rules of the Implementation Committee,^b the secretariat issued those findings and recommendations as an official document for the Committee to refer to, and for their transmission to the Parties involved and, subsequently, to the Meeting of the Parties to the Convention at its ninth session (Geneva, 12–15 December



2023) for its consideration and to be taken into account when considering the related draft decision.

^a Available at <https://unece.org/sites/default/files/2021-02/Implementation%20Committee%20structure%20functions%20procedures%20rules.e%202020.pdf>.

^b Ibid.

I. Introduction – the Committee’s procedure

1. On 13 March 2018, the Implementation Committee under the Convention on Environmental Impact Assessment in a Transboundary Context (Espoo Convention) and its Protocol on Strategic Environmental Assessment received information from the Romanian non-governmental organization (NGO) Actiunea pentru Renasterea Craiovei claiming non-compliance by Bulgaria with its obligations under the Convention regarding the lifetime extension¹ of units 5 and 6 of Kozloduy nuclear power plant.

2. In its information, the NGO alleged that Bulgaria failed to comply with:

(a) Article 2 (2) of the Convention, according to which: “[e]ach Party shall take the necessary legal, administrative or other measures to implement the provisions of [the] Convention, including, with respect to proposed activities listed in appendix I that are likely to cause significant adverse transboundary impact, the establishment of an environmental impact assessment procedure that permits public participation and preparation of the environmental impact assessment”;

(b) Article 2 (3) of the Convention stipulating that: “[t]he Party of origin shall ensure that in accordance with the provisions of this Convention an environmental impact assessment is undertaken prior to a decision to authorize or undertake a proposed activity listed in appendix I that is likely to cause a significant adverse transboundary impact”.

3. The Committee began its consideration of the information provided at its forty-fourth session (Geneva, 12–15 March 2019) and invited Bulgaria, Romania and the NGO to provide further information by 1 June 2019.²

4. At its forty-fifth session (Geneva, 10–13 September 2019), the Committee noted the responses from Romania, dated 30 May 2019. It also examined the responses from Bulgaria dated 28 May and 19 August 2019 to its letters dated 17 April and 22 July 2019 and expressed regret that Bulgaria had failed to respond to its repeated questions regarding the activity and the related transboundary environmental impact assessment procedure. The Committee agreed to ask its Chair to again write to Bulgaria inviting it to respond to the Committee’s questions.³

5. Following information received from Bulgaria on 8 November 2019 in response to requests from the Committee from 17 April, 22 July and 9 October 2019, the Committee at

¹ In the present document, the term “lifetime extension” describes a prolongation of the operation of a nuclear power plant and is based rather on a common understanding of the term than a certain definition (*Guidance on the Applicability of the Convention to the Lifetime Extension of Nuclear Power Plants* (United Nations publication, ECE/MP.EIA/31), paras. 21–22): “continued operation” describes the operation of a nuclear power plant after the lifetime extension; the term “long-term operation” is a technical term used for operation beyond an established time frame set forth by, for example, licence term, design, standards, licence and/or regulations, which has been justified by safety assessment, with consideration given to life-limiting processes and features of systems, structures and components (International Atomic Energy Agency, “Safe Long-term Operation of Nuclear Power Plants”, Safety Reports Series No. 57 (Vienna, 2008), p.1).

² ECE/MP.EIA/IC/2019/2, paras. 85–86.

³ ECE/MP.EIA/IC/2019/4, paras. 79–84.

its forty-sixth session (Geneva, 10–13 December 2019) agreed to seek further clarifications from Bulgaria and inform the NGO about its deliberations.⁴

6. At its forty-eighth session (Geneva, 1–4 September 2020), the Committee reviewed the responses to its letters of 14 January 2020 received from Austria on 7 January 2020, from Bulgaria and Romania on 14 February 2020, and from Serbia on 18 February 2020. It noted with regret that Bulgaria had still failed to provide concrete and comprehensive answers to several of the Committee's questions and decided to again address further questions to Bulgaria.⁵

7. At its forty-ninth session (Geneva (online), 2–5 February 2021), further to its considerations at its additional meeting (online, 10 June 2020), the Committee noted with regret that Bulgaria had not responded to its reiterated requests for factual information regarding the activity and had not provided the requested copies of the licences that the Committee, among other information, needed to evaluate with a view to determining whether the activity fell under the scope of the Convention. The Committee asked its Chair to reiterate the Committee's questions to Bulgaria and to invite the NGO to provide additional information.⁶

8. The Committee noted at its fiftieth session (Geneva (online), 4–7 May 2021) that the NGO had not responded to its letter. It then recalled that the failure of Bulgaria to provide the Committee with information and facts regarding the activity, since May 2019, was indicative of uncooperativeness and hindered the Committee's work to review the Parties' compliance with their obligations under the Convention that the Meeting of the Parties had mandated it to carry out. The Committee agreed to ask the United Nations Economic Commission for Europe (ECE) Executive Secretary to write to Bulgaria requesting information based on a checklist prepared in the light of the criteria proposed by the *Guidance on the Applicability of the Convention to the Lifetime Extension of Nuclear Power Plants* (the Guidance)⁷ that the Meeting of the Parties to the Convention had adopted at its eighth session (Vilnius (online) 8–11 December 2020) through decision VIII/6 (ECE/MP.EIA/30/Add.2–ECE/MP.EIA/SEA/13/Add.2).⁸

9. At its fifty-first session (Geneva (online), 4–7 October 2021), the Committee welcomed information from Bulgaria, dated 9 September 2021, noting with regret that some of its requests still remained unanswered. The Committee decided to write to Bulgaria and the NGO requesting them to respond, by 20 December 2021, with more detailed information about the activity further to detailed questions about the activity.⁹

10. At its fifty-second session (Geneva (online), 29–31 March 2022), the Committee noted with regret that neither Bulgaria nor the NGO had responded to the Committee's separate letters to them, of 29 October 2021. It then reviewed, in the light of the criteria of the Guidance, all information made available to it on the matter by: Bulgaria, as the Party of origin; Austria, Romania and Serbia, as potentially affected Parties; and the NGO. Based on the information, the Committee concluded that the activity fell under the scope of the Convention and that there was a profound suspicion of non-compliance by Bulgaria with its obligations under the Convention regarding that activity. Consequently, the Committee decided to begin a Committee initiative further to paragraph 6 of the Committee's structure and functions. Further to paragraph 9 of the Committee's structure and functions, the Committee invited Austria, Bulgaria, Romania and Serbia to take part at its fifty-third session (Geneva (online), 10–13 May 2022) in order to participate in the discussion and to present information and opinions regarding the transboundary procedure for the activity. The Committee prepared a non-exhaustive list of questions on which it would base its discussions

⁴ ECE/MP.EIA/IC/2019/6, paras. 71–76.

⁵ ECE/MP.EIA/IC/2020/4, paras. 14–21.

⁶ ECE/MP.EIA/IC/2021/2, paras. 71–74.

⁷ United Nations publication, ECE/MP.EIA/31.

⁸ ECE/MP.EIA/IC/2021/4, paras. 67–73.

⁹ ECE/MP.EIA/IC/2021/6, paras. 66–67.

with the Parties concerned during the hearings and invited the Parties concerned to provide written replies by 30 April 2022.¹⁰

11. The Committee welcomed the delegations of Austria, Bulgaria, Romania and Serbia to its fifty-third session for discussions and invited them to present information and opinions on the matter. It then posed questions to seek clarification on the countries' positions further to written replies received from Austria, on 26 April 2022, from Bulgaria, on 29 April 2022, from Romania, on 4 May 2022, and from Serbia, on 6 May 2022. It welcomed, among other things, a clarification by Bulgaria regarding the actions it had taken to prepare for the lifetime extension of units 5 and 6 of Kozloduy nuclear power plant and invited the Party to provide that information in writing by 20 May 2022.¹¹ Bulgaria responded to the request on 20 May 2022.¹²

12. The Committee then prepared its draft findings and recommendations, completing them at its fifty-fourth session (Geneva, 4–7 October 2022).¹³ It transmitted the draft to the Parties concerned for comments or representations by 3 January 2023. At its fifty-fifth session (Geneva, 31 January–3 February 2023), it finalized the findings and recommendations, taking into consideration the comments received from Romania, of 29 November, Austria, of 9 December 2022, and Bulgaria, of 3 January 2023.¹⁴ The findings and recommendations would be referred to in the draft decision on compliance to be submitted to the Meeting of the Parties to the Convention at its ninth session (Geneva, 12–15 December 2023). Any recommendations would also be included in the draft decision itself.

II. Summary of facts, information and issues

13. This section summarizes the main facts, information and issues considered to be relevant to the question of compliance, as presented by Austria, Bulgaria, Romania, Serbia and the NGO in their correspondence to the Committee and during the hearings of 12 May 2022.

A. Nature of the activity

14. Kozloduy nuclear power plant is situated 5 km east of the town of Kozloduy, Bulgaria, on the banks of the Danube River, around 2 km from the border with Romania and 180 km north of Sofia. The distance to Austria is about 900 km and to Serbia about 150 km. The generation facilities and auxiliary buildings are located in an area of 1,000 ha. Together with the bank pump station and the canals for the service water supplies that are included in the infrastructure of the plant, the total area of the nuclear power plant is 4,471 ha.

15. Kozloduy nuclear power plant – the first nuclear power plant in Bulgaria and South-Eastern Europe – has been in operation since 4 September 1974. Its six nuclear power units were constructed and commissioned between 1974 and 1991. Currently, Kozloduy nuclear power plant only operates units 5 and 6 – two pressurized water reactors with a total output of 2,000 megawatt electric (MWe). Units 5 and 6 are water-water energetic (WWER)-1000 reactors, model B-320 with containment and three-fold redundancy of the safety system, construction of which finished in 1987 and 1991, respectively. In 2015, Bulgaria conducted a transboundary environmental impact assessment procedure for the construction of unit 7, a new nuclear power facility.

16. According to publicly available information, in April 2012, Kozloduy Nuclear Power Plant public limited company signed a contract with a consortium of Rosenergoatom and Electricité de France with a view to a future extension of the operating lives of reactors 5

¹⁰ ECE/MP.EIA/IC/2022/2, paras. 18–31.

¹¹ ECE/MP.EIA/IC/2022/4, para. 9.

¹² Letter from Bulgaria with list of activities.

¹³ ECE/MP.EIA/IC/2022/7, para. 31.

¹⁴ ECE/MP.EIA/IC/2023/2, paras. 24–25.

and 6.¹⁵ Early in 2013, a further contract was signed with Rusatom Services to upgrade the turbine generator of unit 6, increasing its electric capacity to 1,100 MWe by installing a new stator, with works completed in November 2015. In October 2014, an agreement for the refurbishment and lifetime extension of unit 5 was signed with the three companies. In October 2015, a further €24.7 million agreement was concluded with Rosatom for upgrading the turbine generator of unit 5 by May 2018, involving Rosenergoatom, Rusatom Services and Electricité de France. Allegedly, Bulgaria is committed to an uprate to 104 per cent of the plant's original capacity.¹⁶

17. On 13 March 2014, Bulgaria notified Romania under article 3 of the Convention in respect of the lifetime extension of units 5 and 6 of Kozloduy nuclear power plant, indicating that the operational lifetime would be extended beyond the initial design lifetime, and that significant adverse impact had not been identified. In a response letter to Bulgaria, dated 9 May 2014, Romania requested the possibility to participate in the subsequent phases of a transboundary environmental impact assessment procedure and asked for further investigations and clarifications regarding several issues.

18. On 5 June 2014, after repeated requests, Romania received further information from Bulgaria on the investment proposal "Lifetime Extension of Unit[s] 5 and 6 at Kozloduy [nuclear power plant]", which concluded that an environmental impact assessment was not necessary. Romania responded to that letter on 15 July 2014, asking Bulgaria to undertake a transboundary environmental impact assessment procedure on the grounds that transboundary impacts could not be excluded, and listing the necessary content of the environmental impact assessment documentation.

19. On 25 July 2014, the Ministry of Environment and Water of Bulgaria adopted decision No. 6-PR/2014 "not to assess the environmental impact of investment project 'Extension of operation of the fifth and sixth units of [nuclear power plant] Kozloduy', which is unlikely to have a significant negative impact on natural habitats, populations and habitats species [sic] subject to conservation in protected areas".

20. On 29 May 2015, Bulgaria informed Romania of its conclusion that an environmental impact assessment for the proposed activity was not needed. On 30 July 2015, Romania responded to Bulgaria, reiterating its wish to participate in a transboundary procedure in accordance with the Convention, providing its views on the likely significant adverse impacts from the activity on the territory of Romania, and proposing to organize a bilateral expert meeting to discuss the matter further.

21. On 6 November 2017, the Nuclear Regulatory Agency of Bulgaria awarded a 10-year extension to the operating licence of unit 5 of Kozloduy nuclear power plant until 2027. The lifetime of unit 6 was extended, also for 10 years, on 3 October 2019. As a result, the planned operating lives for units 5 and 6 extend until 2047 and 2051, respectively.¹⁷ Under Bulgarian legislation, operating licence extensions are limited to 10 years and can be renewed repeatedly.

22. After repeated requests from Romania to Bulgaria, the Parties met on 31 January 2020 and discussed, according to Romania, issues related to: (a) activities undertaken by the Bulgarian authorities for the lifetime extension of units 5 and 6 of Kozloduy nuclear power plant; (b) activities envisaged by the Romanian authorities in the near future, for the Romanian Cernavodă nuclear power plant; and (c) procedures to be followed in a transboundary context for the lifetime extension of units at nuclear power plants in the context of the judgment of the Court of Justice of the European Union in Case No. C-411/17.¹⁸

¹⁵ World Nuclear News, "Bulgaria agrees Kozloduy 6 life extension plan with Russia", 29 January 2016, available at www.world-nuclear-news.org/Articles/Bulgaria-agrees-Kozloduy-6-life-extension-plan-wit.

¹⁶ Ibid.

¹⁷ Letter from Bulgaria to the Implementation Committee with a completed checklist, p. 8, dated 9 September 2021.

¹⁸ Court of Justice of the European Union, *Inter-Environnement Wallonie ASBL and Bond Beter Leefmilieu Vlaanderen ASBL v. Council of Ministers*, Case No. C-411/17, Judgment, 29 July 2019.

23. Furthermore, Austria and Serbia considered themselves potentially affected Parties regarding the lifetime extension of units 5 and 6 of Kozloduy nuclear power plant and requested Bulgaria for a notification on 11 June 2015¹⁹ and 23 September 2021, respectively.

B. Information and issues

24. In the information it provided, the NGO alleged that Bulgaria had failed to undertake a transboundary environmental impact assessment procedure according to the Convention with respect to the decision-making on the planned extension of the lifetime of reactors 5 and 6 of Kozloduy nuclear power plant. According to the NGO, Bulgaria had failed to comply with article 2 (2)–(3) of the Convention.

25. Bulgaria, for its part, asserted that the Convention did not apply to the extension of the lifetime of nuclear power plants, as such an extension did not qualify as a “new activity” or as a “major change” within the meaning of article 1 (v) of the Convention and was not expressly listed in appendix I to the Convention.

26. According to Bulgaria, a modernization programme of units 5 and 6 was implemented between 1999 and 2008 to resolve the design deficiencies of the WWER reactors. The aim of the modernization was to use the original capacity of units 5 and 6 (3,120 MW). The direct costs linked to the lifetime extension of units 5 and 6 in the period 2012–2019 amounted to about €100 million, covering surveys, calculations, analyses and assessments. In addition, according to the information made available to the Committee,²⁰ Bulgaria had implemented at least 280 various changes towards the long-term operation of the activity, with 15 per cent related to replacements, modification and reconstruction of the structures, systems and components, and other changes related to changes in operating conditions, long-term related maintenance and repair works.

27. Bulgaria claimed that no physical work or modifications in the operating conditions related to the lifetime extension of units 5 and 6 had been carried out.

28. According to Bulgaria and Romania, there had been no dedicated transboundary environmental impact assessment procedure regarding units 5 and 6. However, Bulgaria stated that cumulative environmental impacts of those units had been covered by transboundary environmental impact assessment procedures of other planned activities in relation to Kozloduy nuclear power plant, particularly the following ones carried out by Bulgaria involving Romania: in 2013, regarding the decommissioning of units 1–4; in 2014 and 2016, regarding the constructions of high and low radioactive waste treatment/disposal facilities; and in 2015, regarding the construction of a new nuclear unit 7. Bulgaria claimed that a new environmental impact assessment would not have had any added value, due to the fact that there were no physical modifications to the installation.

III. Consideration and evaluation

A. General observations

29. The Committee gathered information allowing it to identify in a sufficiently accurate manner the main facts and events, and to evaluate the application of the Convention. It also referred to the clarifications that it had sought from Bulgaria since 2019, prior to beginning its initiative, on the application by Bulgaria of the Convention with respect to the lifetime extension of units 5 and 6 of Kozloduy nuclear power plant.

30. The Committee observed with regret that some information regarding the activities, in particular copies of the licences, or relevant extracts thereof, including the initial licences for units 5 and 6 issued prior to their entry into operation in 1987 and 1991, respectively, as

¹⁹ Letter from Austria to the Implementation Committee, dated 7 February 2020.

²⁰ Decision No. 6-PR/2014 of the Ministry of Environment and Water of the Republic of Bulgaria, 25 July 2014, p. 3.

well as all subsequent licences for construction and operation of units 5 and 6, or relevant extracts thereof, had not been made available to it by Bulgaria, despite the Committee's numerous requests. It noted that such a situation was not in line with decision VIII/4, which "strongly urges Parties to facilitate the Committee's work in good faith by providing it with the requested information in a timely manner and in good quality".²¹

31. In determining whether to begin a Committee initiative, in accordance with paragraph 6 of the Committee's structures and functions, the Committee took into account, *inter alia*, the following criteria, based on rule 15 of the Committee's operating rules:²²

(a) The source of the information, the Romanian NGO Actiunea pentru Renasterea Craiovei, was known and not anonymous;

(b) The information related to nuclear power stations and other nuclear reactors, an activity listed in appendix I to the Convention;

(c) The information was the basis for a profound suspicion of non-compliance with respect to the extension of the lifetime of nuclear reactors;

(d) The information related to the implementation of Convention provisions;

(e) Committee time and resources were available.

32. Reviewing the information gathered in the light of the Convention since 2019 from Bulgaria and the NGO, as well as from Austria, Romania and Serbia, and considering the Guidance, the Committee concluded that, despite the lack of some information, it had sufficient material for its deliberations about the compliance by Bulgaria with its obligations under the Convention regarding the lifetime extension of the two nuclear power plant units in question. In particular, the Committee decided to begin a Committee initiative due to its profound suspicion of non-compliance by Bulgaria with respect to the activity in question.

33. In response to the exchange of opinions with Bulgaria, the Committee considered it necessary to clarify that it might review compliance with the Convention even after the final decision on the activity in question had been taken, being consistent with the objective and functions of the Committee as set out in paragraph 4 of the Committee's structures and functions.²³ The Committee's objective and functions were not limited to Parties' potential future non-compliance. On the contrary, the Committee was mandated to also address non-compliance that had already occurred. That was evident from paragraph 13 of the Committee's structure and functions, under which the Meeting of the Parties might decide upon measures to bring about compliance. Moreover, doing so was in accordance with the Committee's past practice.²⁴

34. Furthermore, when considering a case of possible non-compliance by a Party with its obligations under the Convention, in line with paragraph 6 of the Committee's structures and functions, the Committee was not bound by rulings of national courts and other national or international bodies, as those were not applicable sources to be taken into account when interpreting obligations under the Convention in line with articles 31 and 32 of the Vienna Convention on the Law of Treaties.

B. Legal basis

35. Bulgaria deposited its instrument of ratification of the Convention on 12 May 1995 and the Convention entered into force for it on 10 September 1997, the date of entry into force of the Convention.

²¹ ECE/MP.EIA/30/Add.2–ECE/MP.EIA/SEA/13/Add.2, para. 11.

²² Available at <https://unece.org/sites/default/files/2021-02/Implementation%20Committee%20structure%20functions%20procedures%20rules.e%202020.pdf>

²³ Available at <https://unece.org/sites/default/files/2021-02/Implementation%20Committee%20structure%20functions%20procedures%20rules.e%202020.pdf>.

²⁴ Findings and recommendations further to a submission by Armenia regarding Azerbaijan (EIA/IC/S/5), ECE/MP.EIA/IC/2013/4, annex; and ECE/MP.EIA/20.Add.1–ECE/MP.EIA/SEA/4.Add.1, decision VI/2, para. 47.

36. Appendix I, item 2 (b), to the Convention identifies among proposed activities to which it applies: “Nuclear power stations and other nuclear reactors, including the dismantling or decommissioning of such power stations or reactors 1/ (except research installations for the production and conversion of fissionable and fertile materials, whose maximum power does not exceed 1 kilowatt continuous thermal load).”

37. In the context of its initiative, the Committee examined the relevant provisions of the Convention in articles 2 (3) and 3 (1) and their application. In examining the relevant provisions, it considered the *Guidance on the Applicability of the Convention to the Lifetime Extension of Nuclear Power Plants*.

C. Main issues

1. Application of the Convention

38. The activity concerns the lifetime extension for units 5 and 6 of Kozloduy nuclear power plant, which consists of the renewal of the licences in 2017 and 2019 and the preparation for long-term operation of the units.

1.1. Application of the Guidance

39. The Committee noted the opinion of Bulgaria that the Guidance was not applicable to the licence renewals for unit 5 in 2017 and for unit 6 in 2019 since it was only endorsed by the Meeting of the Parties at its eighth session in 2020 and had no retroactive effect. However, the Committee stressed that the Guidance only interprets the Convention to support its practical application. It neither imposes new obligations on the Parties, nor expands the application of the Convention’s articles. As recommended by the Meeting of the Parties at its eighth session, the Committee considers the Guidance when performing its functions.²⁵ It does so with a view to ensuring consistent interpretation of the Convention regarding new and pending lifetime extension cases. Therefore, the Committee also considers the Guidance in cases that were already under its review.

40. Regarding the argument by Bulgaria that the application of the Guidance to cases that were pending before its adoption in 2020 contradicts the principle of legal certainty, the Committee emphasized that there were no reasonable grounds for Bulgaria to believe that the Convention would not be applicable to the lifetime extension of nuclear power plants. In its findings and recommendations of 2014 regarding Ukraine, the Committee already found that the extension of the lifetime of reactors 1 and 2 of Rivne nuclear power plant after the initial licence had expired was to be considered a proposed activity under article 1 (v) and was consequently subject to the provisions of the Convention.²⁶ Furthermore, at its seventh session (Minsk, 13–16 June 2017), the Meeting of the Parties to the Convention established an ad hoc working group precisely to discuss and provide guidance on this issue.²⁷

41. The activity constituted a situation in which the end date of a time-limited licence had been reached, but the plant was intended to continue operation.²⁸ Units 5 and 6 of Kozloduy nuclear power plant had operated since 1987 and 1991, respectively, based on regularly renewed time-limited licences that had reached the expiration dates indicated therein. To authorize the continued operation, Bulgaria renewed the licences for unit 5 in 2017 and for unit 6 in 2019. The units were expected to continue their operation, initially as per the latest licences for another 10 years, but potentially for up to 60 years, or for an additional 30 years. While the Committee considered that not every licence renewal must be regarded as a lifetime extension, it found that licence renewal for units 5 and 6 had not occurred early in the operating life and was therefore related to the situation described in the Guidance.

²⁵ Decision VIII/6, para. 5.

²⁶ See ECE/MP.EIA/IC/2014/2, annex, para. 59.

²⁷ See ECE/MP.EIA/23/Add.1–ECE/MP.EIA/SEA/7/Add.1, decision VII/3–III/3, annex I, item I.9; and ECE/MP.EIA/23–ECE/MP.EIA/SEA/7, para. 12.

²⁸ *Guidance on the Applicability of the Convention*, situation 1, as described in paras. 25–26.

42. The activity also constituted a situation in which a periodic safety review was carried out in support of the decision-making process for a lifetime extension.²⁹ Bulgaria undertook periodic safety reviews for its nuclear power plants at a minimum every 10 years in preparation for the licence renewal. According to its national legislation, a periodic safety review was a necessary condition for the renewal of the operating licence. Based on the design documentation, units 5 and 6 of Kozloduy nuclear power plant were initially to operate for 30 years; until 2017 for unit 5 and until 2021 for unit 6. The latest periodic safety reviews were undertaken towards the end of the operating lifetime in support of the latest licence renewal.

43. In the light of the above, the Committee concluded that the Guidance was applicable to the lifetime extension of units 5 and 6 of Kozloduy nuclear power plant as the activity was related to specific situations described in chapter II, section C, of the Guidance.

1.2. *Major change to an activity (art. 1 (v) and appendix I, item 2 (b), to the Convention)*

44. The Committee noted the opinion of Bulgaria that lifetime extensions were outside of the scope of the Convention. However, the Committee recalled its previous opinion that the continued operation beyond the originally authorized lifetime of a nuclear reactor was covered by appendix I, item 2 (b).³⁰ It also took note of the conclusion in the Guidance, endorsed by the Meeting of the Parties, that “[l]ifetime extensions must ... be considered to be within the scope of the Convention, even though they are not explicitly mentioned in the list of activities.”³¹

45. The Committee further noted the opinion of Bulgaria that the licence renewal for units 5 and 6 of Kozloduy nuclear power plant and the investment project for the long-term operation of the two units constituted neither a new activity nor a “major change” to an activity according to article 1 (v) of the Convention.

46. Regarding the interpretation of the term “major change”, Bulgaria argued that the Parties to the Convention had discretion when implementing the Convention’s obligation and determining whether a proposed change to an activity was major or not. While the Committee agreed that the Convention allowed its Parties flexibility to implement their obligations differently, it emphasized that such implementation practices must remain within the limits of the Convention’s obligations and their interpretation.³² The endorsement of the Guidance by the Meeting of the Parties can be regarded as subsequent practice of the Parties regarding the interpretation of the Convention, in line with article 31 (3) (b) of the Vienna Convention on the Law of the Treaties.

47. Regarding the classification of the activity as major change, Bulgaria argued that:

(a) The preparation for long-term operation of units 5 and 6 of Kozloduy nuclear power plant did not involve the building of new facilities, changes in the technology of the production process and normal operation, or an increase in the nuclear fuel used;³³

(b) The activities to modernize and modify structures, systems and components, to replace equipment of the same type and to adjust part of the equipment connected to the reactor installation were performed within the scope of the licence and were part of regular maintenance and ageing management;³⁴

²⁹ Ibid., situation 3, as described in paras. 28–31.

³⁰ ECE/MP.EIA/IC/2014/2, annex, para. 37.

³¹ *Guidance on the Applicability of the Convention*, para. 37.

³² See also ECE/MP.EIA/IC/2020/4, annex I, para. 11: “While the Convention allowed its Parties flexibility regarding application of its procedures within diverse national contexts, that flexibility was limited by each Party’s duty to comply with the Convention, and to implement it effectively and in keeping with its purpose.”

³³ Letter from Bulgaria to the Implementation Committee with a completed checklist, dated 9 September 2021, p. 7.

³⁴ Ibid.

(c) The investment costs of €100 million were used to conduct surveys and assessments and to develop justifications preparing for long-term operation of units 5 and 6 of Kozloduy nuclear power plant.³⁵

48. The Committee considered the interpretation in the Guidance that even physical works or modifications in the operating conditions of a smaller scale may amount to a major change.³⁶

49. The Committee had already expressed its opinion that all physical works and modifications in the operating conditions should be considered by the competent authority when deciding on the applicability of the Convention. Those should not be limited to works and modifications that altered the design and changed the technology of the production process or normal operation.³⁷ In addition, it clarified that physical works were not limited to the construction of new buildings. Therefore, activities to modernize, modify and replace structures, systems and components of units 5 and 6 of Kozloduy nuclear power plant were considered as physical works.

50. The Committee had also already expressed its opinion, that, taking into account the length of the extended operation of the units, the amount and scale of works and modifications was less relevant.³⁸ By way of an explanation, it referred to the Guidance, which refers to the duration of the lifetime extension as one factor that indicates that physical changes or modifications in the operating conditions of a smaller scale may amount to a major change.³⁹ While Bulgaria renewed the licences for units 5 and 6 of Kozloduy power plant only for 10 years due to the country's licensing system, the investments made were intended to prepare the units for an operation of another 30 years.

51. Despite requests, Bulgaria did not provide the Committee with detailed information about the works and modifications that the operator of units 5 and 6 of Kozloduy nuclear power plant had conducted. However, according to the general information made available to it, Bulgaria had implemented at least 280 various changes towards long-term operation of the activity, with 15 per cent related to replacements, modification and reconstruction of the structures, systems and components, and others related to changes in operating conditions and long-term related maintenance and repair works. The Committee considered that, also in view of the intended operation for another 30 years, those various changes, with investment costs of about €100 million, including physical works within the nuclear power plant and modifications in the operating conditions of a smaller scale, when taken as a whole, pointed towards a major change.

52. Considering the statement in the Guidance that changes covered by the existing authorization to operate do not trigger the application of the Convention,⁴⁰ the Committee found that this depended on the licensing regime and the licence conditions. For example, changes requested in a licence renewal authorizing long-term operation or changes implementing requirements specifying conditions under a rather general licence are relevant when deciding whether physical works or modifications in the operating conditions amounted to a major change.

53. Furthermore, the Committee considered the statement in the Guidance that physical works undertaken as part of regular maintenance work or ageing management are not usually regarded as major changes.⁴¹ It pointed out that nuclear power plants during their lifetime underwent continuous step-by-step safety reviews and upgrades. It found that related physical works were to be treated differently depending on their timing. While physical works early in the operating life were less relevant, physical works towards the end of the plant's lifetime were to be considered when deciding on the application of the Convention

³⁵ Letter from Bulgaria to the Implementation Committee dated 29 April 2022, annex, p. 4.

³⁶ *Guidance on the Applicability of the Convention*, para. 47.

³⁷ ECE/MP.EIA/IC/2022/2, para. 25.

³⁸ *Ibid.*, para. 26.

³⁹ *Guidance on the Applicability of the Convention*, para. 47.

⁴⁰ *Ibid.*, para. 43.

⁴¹ *Ibid.*, para. 48.

for a lifetime extension, even if they were part of regular maintenance work or ageing management.

54. The decisions in 2017 and 2019 to permit the continuous activities at units 5 and 6 for an additional 10 years, respectively, were taken in close connection with a programme to undertake numerous measures to prolong the operation of the units from 30 years to the now-possible 60 years. Hence, those decisions should not be regarded as mere regular extensions of the validity of the licences in connection with regular maintenance. Furthermore, the Committee was not presented with any documentation, for instance, permitting decisions, that would contradict the conclusion that, in this case, the lifetime of units 5 and 6 actually was extended in the meaning of the Guidance.

55. In the light of the above, and based on the information made available to it, the Committee concluded that those various changes, including physical works within the nuclear power plant and modifications in the operating conditions, amounted to a major change to an activity listed in appendix I to the Convention, and, therefore, were subject to the Convention.

1.3. *Likely significant adverse transboundary impact*

56. The Committee noted the opinion of Bulgaria that the long-term operation of units 5 and 6 of Kozloduy nuclear power plant did not lead to a change in the likely significant adverse transboundary impacts. The Committee recalled its previous opinion that, when assessing the likelihood of significant adverse transboundary impacts during the screening⁴² procedure, all impacts were relevant and not only any additional ones compared to those occurring from the plant's operation before the lifetime extension.⁴³ In forming its opinion, the Committee had considered the Guidance, which states that, generally, the extended lifetime of a nuclear power plant has impacts that are similar to those of a new nuclear power plant considered in its initial operation.⁴⁴

57. The Committee further noted that the Bulgarian Ministry of Environment and Water had concluded, in its decision of 25 July 2014, that monitoring programmes had found that radiological emissions from operation of the units remained within prescribed limits and a stress test conducted in 2011 had shown that procedures were in place to respond to, among other things, severe accidents.⁴⁵ The Committee found that Bulgaria had not taken into account all impacts when deciding on the applicability of the Convention. The Committee recalled its previously expressed opinion, that impacts caused by the activity during usual operation, as well as impact caused by an accident, need to be taken into account.⁴⁶ The Committee also considered that, according to the Guidance, impacts resulting from operational states, including normal operation and anticipated operational occurrences, as well as impacts resulting from accidents, including accidents within the design bases and within the design extension conditions, as well as beyond design basis accidents, need to be identified.⁴⁷ The Committee found that Bulgaria had not demonstrated that it had identified all possible adverse impacts of operational states and accidents of the continued operation beyond 2017 for unit 5 and beyond 2019 for unit 6 of Kozloduy nuclear power plant.

58. Regarding environmental impacts of normal operation, the Committee noted that Bulgaria had separate procedures to assess the environmental impacts of the production of radioactive waste, as well as the withdrawal and disposal of cooling water. It considered that, while remaining within the authorized limits, the waste production and water use during continued operation caused impacts on the environment that needed to be assessed together

⁴² The Committee uses "screening" as explained in the *Good Practice Recommendations on the Application of the Convention to Nuclear Energy-related Activities* (United Nations publication, ECE/MP.EIA/24), para. 9: "The purpose of screening under the Convention is to determine whether a proposed activity or a major change to an activity listed in appendix I to the Convention is likely to cause a significant adverse transboundary impact."

⁴³ ECE/MP.EIA/IC/2022/2, para. 27.

⁴⁴ *Guidance on the Applicability of the Convention*, para. 58.

⁴⁵ Decision No. 6 - PR/2014 to assess the need of an environmental impact assessment.

⁴⁶ ECE/MP.EIA/IC/2016/2, para. 62.

⁴⁷ *Guidance on the Applicability of the Convention*, para. 58.

with other environmental impacts of continued operation after the lifetime extension. Splitting up the environmental impact assessment for normal operation into different procedures would preclude a look at the complete picture.

59. The Committee further considered that Bulgaria had not demonstrated that it had assessed the likelihood of significant adverse transboundary impacts of accidents in the light of decision IS/1 which “[e]mphasizes that Parties to the Convention that carry out nuclear energy-related activities should do so in accordance with the Convention, in a sustainable manner, taking into consideration the precautionary and polluter pays principles, and respecting international nuclear safety standards and relevant environmental legislation”.⁴⁸ The Committee noted that Bulgaria was of the opinion that it had implemented the relevant requirements of international treaties on nuclear safety when assessing the likelihood of accidents and that compliance with such requirements was outside of the Convention’s scope. It further considered the Guidance, which states that it is the responsibility of the competent authority to assess which accident scenarios are likely to cause significant adverse transboundary impacts and which accident scenarios can be excluded.⁴⁹ However, when reviewing the decision of the Bulgarian Ministry of Environment and Water of 25 July 2014, the Committee could not find any information indicating that the Bulgarian Ministry of Environment and Water had taken into account such considerations in its assessment process.

60. Lastly, the Committee reiterated its view that, if accidents, especially beyond design basis accidents, occurred at nuclear power plants, the likelihood of significant adverse transboundary impacts could be very high,⁵⁰ in particular for Parties situated in close proximity to the plant, such as Romania, which shares with Bulgaria both a border – located only 3.7 km from the plant – and a common body of water, but also for other Parties located further away, such as Austria and Serbia.

61. In the light of the above, the Committee concluded that Bulgaria had not identified all likely significant adverse transboundary impacts of the proposed activity when making its screening decision, i.e. when assessing the application of the Convention to it.

2. Requirement to undertake an environmental impact assessment (art. 2 (3))

62. The Committee noted the opinion of Bulgaria that the impacts of long-term operation had already been considered, analysed and presented in the existing safety analysis report, which had been approved by the Bulgarian Nuclear Regulatory Agency. However, despite overlaps, such assessment focusing on nuclear safety is usually not comparable in scope with an environmental impact assessment. This also applies to periodic safety reviews.⁵¹

63. The Committee further noted the opinion of Bulgaria that the non-application of the Convention to the lifetime extension of units 5 and 6 of Kozloduy nuclear power plant had been approved by national courts in Bulgaria as well as by the European Parliament Committee on Petitions. However, such findings by a national court or European Union body do not replace the procedures under the Convention regarding compliance and cannot be regarded as the ultimate interpretation of the obligations of Bulgaria under the Convention.

64. The Committee also noted information from Bulgaria that a series of environmental impact assessments had been undertaken for activities at Kozloduy nuclear power plant, including for:

- (a) The decommissioning of units 1–4 in 2013;
- (b) A facility for treatment and conditioning of radioactive wastes with a high volume reduction factor in 2014;
- (c) The construction of a national disposal facility for low and intermediate radioactive waste in 2016;
- (d) The construction of a latest-generation nuclear unit in 2013.

⁴⁸ ECE/MP.EIA/27/Add.1–ECE/MP.EIA/SEA/11/Add.1, decision IS/1, para. 8 (a).

⁴⁹ *Guidance on the Applicability of the Convention*, para. 63.

⁵⁰ See ECE/MP.EIA/IC/2016/2, para. 62; and ECE/MP.EIA/2019/14, para. 94.

⁵¹ For periodic safety reviews, see ECE/MP.EIA/IC/2014/2, para. 53.

65. The Committee was of the view that those environmental impact assessment procedures, even if related to units 5 and 6 of Kozloduy nuclear power plant, could not be considered as the required environmental impact assessment in the context of the specific decision-making in 2017 and 2019 for the lifetime extension of units 5 and 6. In particular, the Committee noted that, while the licence renewals authorized continued operation for another 10 years, the units were prepared for long-term operation of an additional 30 years.

66. The Committee further noted that, as units 5 and 6 of Kozloduy nuclear power plant had operated since 1987 and 1991, respectively – before the Convention’s existence – the Convention did not apply to the original licences. Based on the information available to it, the Committee noted that no transboundary environmental impact assessment procedures had been undertaken prior to the issuance of the original licences or of the lifetime extension licence.

67. In the light of the above, the Committee considered that Bulgaria did not comply with the requirement of article 2 (3) of the Convention to undertake an environmental impact assessment prior to the decision to authorize the lifetime extension.

3. Requirement to notify potentially affected Parties (art. 3 (1))

68. Having determined that the lifetime extension of units 5 and 6 of Kozloduy nuclear power plant fell within the scope of the Convention, the Committee considered that Bulgaria was required to notify potentially affected Parties in accordance with article 3 (1) of the Convention.

3.1. Notifications for the lifetime extension of 2017 and 2019 for units 5 and 6

Austria

69. The Committee noted that Bulgaria had not notified Austria of the lifetime extension for units 5 and 6 of Kozloduy nuclear power plant. On 11 June 2015, Austria contacted Bulgaria referring to media information, asking Bulgaria about the planned activities and requesting a notification under article 3 of the Convention.⁵² Bulgaria informed Austria that the screening had not identified significant adverse transboundary impact and shared the decision issued by the Ministry of Environment and Water on 25 July 2014. Austria was of the opinion that Bulgaria should have undertaken an environmental impact assessment but did not take any further steps.

Romania

70. Bulgaria notified Romania of the planned lifetime extension for units 5 and 6 via a letter dated 13 March 2014. The Committee noted the opinion of Bulgaria that it was not required to notify Romania under article 3 (1) of the Convention but did so on a voluntary basis. It further noted the exchange between Bulgaria and Romania about the need to undertake an environmental impact assessment procedure prior to the planned lifetime extension, with Bulgaria expressing its view that a transboundary environmental impact assessment procedure was not required, while Romania expressed its opinion that such a procedure was necessary and that it wished to participate in it. Lastly, the Committee noted that Bulgaria and Romania had conducted a bilateral consultation meeting on the long-term operation of nuclear power plants on 31 January 2020 in which they had agreed also on open issues regarding the lifetime extension of units 5 and 6 of Kozloduy nuclear power plant, and that Romania considered the procedure completed.

Serbia

71. The Committee noted that Bulgaria had not notified Serbia of the lifetime extension for units 5 and 6 of the nuclear power plant. The Committee further noted that Serbia had requested a notification via a letter dated 23 September 2021.

⁵² Letter from Austria to the Implementation Committee, dated 7 February 2020.

72. The Committee noted that the request for a notification from Serbia had been made with a significant delay, notably more than one-and-a-half years after the initial request for information about the matter from the Committee to Serbia.

73. The Committee lastly noted that Serbia did not request the exchange of information under article 3 (7) of the Convention. However, regarding the application of article 3 (7) of the Convention, it reiterated its previous opinion that the potentially affected Party should contact the Party of origin as early as possible, or as soon as it became aware of a proposed activity that it considered to have a likely significant adverse transboundary impact.⁵³

3.2. *Requirement to notify potentially affected Parties for future lifetime extensions*

74. The Committee noted that Austria, Romania and Serbia all expressed their wish to be notified of future lifetime extensions of units 5 and 6 of Kozloduy nuclear power plant. It further noted that Austria submitted information to demonstrate that its territory could be affected in case of a severe accident at Kozloduy nuclear power plant. The Committee lastly noted the commitment made by Bulgaria during the hearing of 12 May 2022 to notify Austria, Romania and Serbia ahead of a future lifetime extension for units 5 and 6 of Kozloduy nuclear power plant in accordance with article 3 (1) of the Convention.

75. The Committee reiterated its earlier opinion in which it had emphasized that: “In the absence of notification, particularly with regard to nuclear power plants, where a potentially affected Party considers that a significant adverse transboundary impact of a proposed activity cannot be excluded and expresses the wish to be notified, the Party of origin should apply the Convention. In such situations, failure to notify would infringe on the right of potentially affected Parties and their public to be informed and to participate in a timely manner in the environmental impact assessment procedure.”⁵⁴

76. The Committee took note of decision IS/1, according to which the Party of origin should make the most careful consideration on the basis of the precautionary principle and available scientific evidence when assessing, for the purpose of notification, which Parties are likely to be affected by a proposed nuclear activity listed in appendix I.⁵⁵

77. Lastly, the Committee considered the Guidance, which encourages the Party of origin “to take into consideration whether the nuclear power plant in question was planned and constructed before the Convention’s entry into force and the fact that the risk perception may change over time and vary from Party to Party”.⁵⁶

IV. Findings

78. Having considered the above, the Committee adopts the following findings, with a view to bringing them to the attention of the Meeting of the Parties for formal adoption in accordance with paragraph 13 of the appendix to decision III/2 (ECE/MP.EIA/6).

1. **General statement on uncooperativeness**

79. The Committee finds that the lack of responses to the Committee’s queries by Bulgaria was indicative of its uncooperativeness, which hindered not only the Committee’s work to review the Party’s compliance with its obligations under the Convention that the Meeting of the Parties had mandated it to carry out, but also consumed the Committee’s limited resources. The Committee recalls paragraph 11 of decision VIII/4 “strongly urg[ing] Parties to facilitate the Committee’s work in good faith by providing it with the requested information in a timely manner and in good quality” and article 26 of the Vienna Convention on the Law of Treaties.

⁵³ ECE/MP.EIA/IC/2021/6, para. 68 (b).

⁵⁴ ECE/MP.EIA/2019/14, para. 103.

⁵⁵ ECE/MP.EIA/27/Add.1–ECE/MP.EIA/SEA/11/Add.1, decision IS/1, para. 4 (b).

⁵⁶ *Guidance on the Applicability of the Convention*, para. 78.

2. Application of the Convention

80. The Committee finds that the activities implemented for the lifetime extension of units 5 and 6 of Kozloduy nuclear power plant, i.e. the renewal of the licences in 2017 and 2019 together with the preparation for long-term operation of the units, amounted to a major change to an activity listed in appendix I to the Convention.

81. Having considered the Guidance as a tool for determining the application of the Convention, the Committee finds that the activities are a lifetime extension, falling under the specific situations set out in chapter II, section C, of the Guidance (see paras. 41–42 above).

82. The Committee finds that Bulgaria had not identified all likely significant transboundary impacts when limiting the scope of the screening decision to additional impacts caused by changes implemented to prepare the units for long-term operation. Consequently, Bulgaria did not assess all significant adverse transboundary impacts of operational states and accidents of the continued operation beyond 2017 for unit 5 and beyond 2019 for unit 6 of Kozloduy nuclear power plant.

3. Environmental impact assessment (art. 2 (3))

83. The Committee finds that Bulgaria was in non-compliance with article 2 (3) of the Convention when it prepared units 5 and 6 of Kozloduy nuclear power plant for long-term operation and renewed the licences in 2017 and 2019 to authorize their continued operation without undertaking a prior transboundary environmental impact assessment in accordance with the Convention.

4. Notification of potentially affected Parties (art. 3 (1))

84. The Committee finds that Bulgaria was in non-compliance with article 3 (1) of the Convention by not notifying Austria, Romania and Serbia as potentially affected Parties about the lifetime extension for units 5 and 6 of Kozloduy nuclear power plant in 2017 and 2019. However, it notes that Austria and Romania had since considered the procedure to be closed and no longer pursued the case. The Committee further notes that the request by Serbia dated 23 September 2021 for notification had been made with a significant delay.

V. Recommendations

85. The Committee recommends that the Meeting of the Parties:

(a) Express regret at the uncooperativeness of Bulgaria with regard to providing the Committee with the information and documentation needed for its deliberations, requiring it to repeatedly request such information and documentation;

(b) Remind Bulgaria to facilitate the Committee's work in good faith, as urged by paragraph 11 of decision VIII/4 (ECE/MP.EIA/30/Add.2–ECE/MP.EIA/SEA/13/Add.2) and in line with article 26 of the Vienna Convention on the Law of Treaties;

(c) Endorse the findings of the Implementation Committee that, in accordance with the information provided to the Committee, Bulgaria was in non-compliance with articles 2 (3) and 3 (1) of the Convention by extending the lifetime of units 5 and 6 of Kozloduy nuclear power plant and preparing the units for long-term operation without applying the Convention;

(d) Welcome the fact that Bulgaria committed itself to notifying Austria, Romania and Serbia ahead of any future lifetime extension for units 5 and 6 of Kozloduy nuclear power plant in accordance with article 3 (1) of the Convention after the Parties had requested such notification;

(e) Request Bulgaria to ensure that the Convention is fully applied in the context of any future decision-making regarding Kozloduy nuclear power plant, including ensuring that:

(i) All impacts of operational states and accidents are properly taken into account during the environmental impact assessment procedure;

- (ii) When considering whether the lifetime extension constitutes a major change, the activities implemented to prepare for long-term operation prior to the last licence renewals are taken into account;
- (iii) Bulgaria notifies, in accordance with article 3 (1) of the Convention, any Party which it (Bulgaria) considers may be affected, including Austria, Romania and Serbia, which, in the context of the present case, have expressly considered themselves potentially affected and requested to be notified;
- (f) Recommend that Bulgaria follow the good practice recommendations of the Meeting of the Parties that given the great public concern and national interests involved when it comes to nuclear energy-related activities, a wide notification, i.e. beyond neighbouring Parties, could prevent later misunderstandings and potential disputes.⁵⁷

⁵⁷ *Good Practice Recommendations on the Application of the Convention to Nuclear Energy-related Activities*, para. 28, endorsed by the Meeting of the Parties at its seventh session (Minsk, 13–16 June 2017), through decision VII/6 (ECE/MP.EIA/23.Add.2–ECE/MP.EIA/SEA/7.Add.2).